

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An optimization process for radio resources allocated to an MBMS service (Multimedia Broadcast/Multicast Service) broadcast by a source to a group of mobile terminals located in a limited geographic zone that is covered by at least one cellular telecommunication network, comprising:

counting the mobile terminals present in said geographic zone,

fixing a percentage of mobile terminals that should receive the MBMS service,

broadcasting signals having a determined power level,

determining a percentage of mobile terminals that respond to signals that have been broadcast,

reducing an emission power level, as long as the fixed percentage of mobile terminals has not been reached,

defining a first criterion representing a minimum level of reception quality by the mobile terminals of the service broadcast in said geographic zone,

defining a second criterion representing a distance between the broadcast source and the mobile terminals for using a shared channel in said geographic zone and for which a reception of the broadcast service is optimal,

defining a third criteria representing the fixed percentage of mobile terminals that has been reached at a fixed emission power level;

establishing a signalization connection between the cellular telecommunication network and mobile terminals located in a broadcast zone that fulfill the first, ~~and second~~ and third criteria; and

transmitting the MBMS service to said mobile terminals at said fixed emission power level,

wherein activation and synchronization of said mobile terminals in said shared channel is carried out by said mobile terminals.

2. (previously presented): A process according to claim 1, wherein said signalization connection is used to count the mobile terminals of a broadcast zone.

3. (canceled).

4. (previously presented): The process according to anyone of claims 1 to 3, wherein said cellular telecommunication network is a UMTS network.

5. (previously presented): The process according to claim 4, wherein the first criterion that represents the minimum level of reception quality is determined according to a minimum level of received signal code power (RSCP) measured by code indicated by said cellular telecommunication network.

6. (previously presented): The process according to claim 4, wherein the first criterion that represents the minimum level of reception quality is determined according to a signal-to-noise ratio E_c/N_0 that is indicated by said cellular telecommunication network.

7. (previously presented): The process according to anyone of claims 1 to 3, wherein said cellular telecommunication network is a GSM/GPRS network.

8. (previously presented): The process according to claim 7, wherein the first criterion that represents the minimum level of reception quality is determined according to a parameter (RX lev GSM).

9. (currently amended): A mobile terminal aimed at receiving an MBMS service broadcast by a source in a limited geographic zone that is covered by at least one cellular telecommunication network, comprising:

means for fixing a percentage of mobile terminals that should receive the MBMS service,

means for broadcasting signals having a determined power level,

means for determining a percentage of mobile terminals that respond to signals that have been broadcast,

means for reducing an emission power level, as long as the fixed percentage of mobile terminals has not been reached

means for establishing connections with said cellular telecommunication network

in the cases:

in which a reception quality level is below a minimum level defined by said cellular telecommunication network for said zone; ~~and~~

in which a distance between the mobile terminal and the broadcast source for using a shared channel in said geographic zone is greater than a distance established in advance by said cellular telecommunication network; and

in which the fixed percentage of mobile terminals has been reached at a fixed emission power level,

wherein activation and synchronization of said mobile terminal in said shared channel is carried out by said mobile terminal.

10. (previously presented): The mobile terminal according to claim 9, wherein the mobile terminal establishes a connection with said cellular telecommunication network when a signal-to-noise E_c/N_0 is lower than a level that has been set in advance by said cellular telecommunication network, or when a minimum level of received signal code power RSCP is lower than a preset value.